

REMARKS

Claims 1-8 and 14-15 are in the case. Claims 9-13 are cancelled without prejudice or disclaimer. Claims 9-13 were withdrawn from consideration on the basis of a requirement for restriction. New Claims 14 and 15 are added. No additional fees are incurred by addition of Claims 14 and 15.

The Examiner is thanked for the telephonic interview of February 8, 2007 with the undersigned, which cleared up the ambiguous handwritten comments found on the "PTO Form 1449" attachments to the current Office Action. During that interview, the Examiner made clear that he had reviewed all documents listed on the IDS forms attached to the current Office Action, as acknowledged by his initialed notations.

Discussion of Amendment to the Specification

Amendment is made to paragraph [0001] to make current the information involving reference to related applications. No new matter is added by this amendment.

Discussion of Amendment and Newly Added Claims

Claim 1 is amended to include the feature which relates to the form of the 1,3-dibromo-5,5-dialkylhydantoin as being in granules devoid of binder and having a particular average size range. Support for this amendment can be found at least in the Specification at paragraphs [0029], [0071], and [0078]. No new matter is added by this amendment.

New Claims 14 and 15 are added. Support for these new claims can be found at least in the Specification at paragraphs [0037], [0038], [0073], [0078] and Tables 7 and 8. No new matter is added by these new claims.

Rejection of Claims 1-4, 6 and 8 under 35 U.S.C. 102(b) and or 103(c) over Smith

Claims 1-4, 6 and 8 stand rejected under 35 U.S.C. 102(b) as anticipated by, or in the alternative, under 35 U.S.C. 103(c), as obvious over Smith (US 4925866) ("Smith"). Applicants respectfully traverse this rejection on the basis that a *prima facie* case of anticipation or obviousness has not been established and does not exist, as to the claims as now amended.

The Office Action fails to establish a *prima facie* case of anticipation, and thus the anticipation rejection is deemed unsupported. As pointed out by the Board of Patent Appeals & Interferences:

It is by now well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office. *In re Skinner*, 2 USPQ2d 1788, 1788-89 (B.P.A.I. 1986). See also *Ex parte Natale*, 11 USPQ2d 1222, 1226 (B.P.A.I. 1989).

As to the requirements for establishing a *prima facie* case of anticipation, *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193, (Fed. Cir. 1983)) points out:

Anticipation requires the presence in a single reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Likewise, it is well settled that the Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art. See in this connection *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). It is also well settled that in applying Section 103(a), it is necessary to consider each and every limitation set forth in the claims. No limitation can be ignored. A rejection which fails to consider all claim limitations is improper and non-sustainable. *In re Glass*, 176 U.S.P.Q. 489 (CCPA 1973).

Since Claim 1 as amended states, in pertinent part:

... said at least one 1,3-dibromo-5,5-dialkylhydantoin that is introduced into said water is introduced in the form of granules and wherein prior to introduction into said water said granules of said at least one 1,3-dibromo-5,5-dialkylhydantoin have an average size in the range of about 40 U.S. standard mesh size to about 5/16-inch.

Smith does not teach use of granules of 1,3-dibromo-5,5-dialkylhydantoin which have the required average size ranges. In fact, Smith only mentions the form of the solid N-halohydantoin as “in particulate form” suspended in a mesh bag and “granular N-halohydantoin” applied directly to plant bulbs or seeds. See Smith at Column 6, lines 64-69 and Column 9, lines 9-13. Thus, Smith cannot be seen to show anticipation of the present claims since all features of amended Claim 1 and the claims that depend therefrom are not taught by the reference. Furthermore the obviousness rejection of the

present claims in view of Smith is likewise deficient for failing to teach or suggest, let alone make obvious, all required features of the present claims.

As made clear by the Specification at paragraph [0029]:

Not only are such agents highly effective as microbiocidal agents, but in addition are environmentally friendly and highly cost-effective, especially when used in the form of granules, and most especially when the granules are devoid of any binder or other substance increasing the hardness of the granules.

Such good performance of granules as required in the present claims are not contemplated or suggested by the teaching of Smith. In addition, Example 19 of the present Specification illustrates the excellent flowability characteristics and low-dusting properties possessed by the large average particle size 1,3-dibromo-5,5-dimethylhydantoin. See the Specification at paragraph [0082], [0086] and Table 14.

The rejections are inapplicable and should be withdrawn.

Rejection of Claims 1-4, 6 and 8 under 35 U.S.C. 102(e) over Howarth US2003/0077365

Claims 1-4, 6 and 8 have been rejected under 35 U.S.C. 102(e) as being unpatentable over Howarth, US 2003/0077365, (“Howarth”). This rejection is respectfully traversed.

Pursuant to 35 U.S.C. 103(c), Howarth does not preclude patentability since Howarth qualifies as prior art only under 35 U.S.C. 102(e), and since the subject matter of the reference and the claimed invention were, at the time the claimed invention was made, subject to an obligation of assignment to Albemarle Corporation, Richmond, Va. Thus, the rejection of the present claims on the basis of Howarth is untenable and should be withdrawn.

Rejection of Claims 1-3, 6 -8 under 35 U.S.C. 102(e) over Howarth et al. WO02/062141

Claims 1-3, and 6-8 have been rejected under 35 U.S.C. 102(e) as being unpatentable over Howarth et al., WO 02/062141 (“Howarth et al.”). This rejection is respectfully traversed.

Pursuant to 35 U.S.C. 103(c), Howarth et al. does not preclude patentability since Howarth qualifies as prior art only under 35 U.S.C. 102(e), and since the subject matter of the reference and the claimed invention were, at the time the claimed invention was made, subject to an obligation of assignment to Albemarle Corporation, Richmond, Va. Thus, the rejection of the present claims on the basis of Howarth et al. is untenable and should be withdrawn.

Rejection of Claims 1-4 and 8 under 35 U.S.C. 102(a) over Nalepa et al. 2002

Claims 1-4 and 8 have been rejected under 35 U.S.C. 102(a) as being anticipated by “Nalepa et al. 2002”, TP02-13 Nalepa et al.; Cooling Technology Institute; *The Control of Bacteria On Surfaces: Effectiveness Of Bromine-based Biocides Towards Microbial Biofilms And Biofilm-associated Legionella Pneumophila*; February 3-6, 2002, (“Nalepa et al. 2002”). This rejection is respectfully traversed.

A review of the first page of the cited non-patent literature reference shows that the paper was presented at the 2002 Cooling Technology Institute Annual Conference which was held on February 3-6, 2002. Applicant Nalepa advises that the practice of the Cooling Technology Institute at that time was to make available copies of the papers to be delivered at the conference at the beginning of the conference. Thus, the earliest availability to the public of this reference was February 3, 2002, which is much later than the priority date(s) of the present application. Consequently, Nalepa et al. 2002 is not available for use as a prior art reference and the rejection should be withdrawn.

Rejection of Claims 1-4, 7 and 8 under 35 U.S.C. 102(a) over Howarth and Nalepa 2001

Claims 1-4, 7 and 8 have been rejected under 35 U.S.C. 102(a) as being anticipated by “Howarth and Nalepa 2001”; IWC-01-05, [International Water Conference]; *A New, Bromine-Releasing Solid For Microbiological Control Of Cooling Water*; October 21-15, 2001. This rejection is respectfully traversed.

Enclosed herewith and marked for identification as Attachment is a copy of a portion of the 2001 International Water Conference, On-Site Program, which was held on October 21-25, 2001. The document, in its entirety, was found at <http://www.eswp.com/PDF/water01final.pdf>, visited on April 16, 2007. As shown on page two of the Attachment, the noted paper was

delivered on Monday which corresponds with October 22, 2001. Applicant Nalepa advises that it was the practice of the International Water Conference at that time to make available copies of the papers to be delivered at the beginning of the conference. Thus, the earliest availability to the public of this reference was October 21, 2001, which is much later than the priority date(s) of the present application. Consequently, Howarth and Nalepa 2001 is not available for use as a prior art reference and the rejection should be withdrawn.

Rejection of Claims 1-8 under 35 U.S.C. 103(a) as unpatentable over Smith in view of Price et al. US 5476116 and Nalepa et al. 2002.

Claims 1-8 have been rejected under 35 U.S.C. 103(a) as unpatentable over Smith in view of Price et al., US 5476116, ("Price") and Nalepa et al. 2002. In view of the unavailability of Nalepa et al. 2002 as a valid reference, as discussed previously, the rejection which, as applied, requires all three references, is not supported and should be withdrawn.

Double Patenting Rejection Over US Pat. Nos. 6,565,868 and 6,641,828

Claims 1-6, and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of US Pat. No. 6,565,868. Claims 1, 2 and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of US Pat. No. 6,641,828.

A Terminal Disclaimer document containing disclaimers over the two cited patents is being filed with this Response together with a Statement under 37 C.F.R. 3.73(b) and an authorization for payment from a Deposit Account of the requisite fee for recording the Terminal Disclaimer. Thus these double patenting rejections no longer apply.

Regarding Claims 14 and 15, these claims are supported by the Specification and are patentable over the cited references based on the features discussed above, as well as the additional features included in these claims.

In light of the foregoing amendments and remarks, the case is believed to be in condition for allowance. Prompt notification to this effect would be sincerely appreciated.

If any matters remain that require further consideration, the Examiner is requested to telephone the undersigned at the number given below so that such matters may be discussed, and

if possible, promptly resolved. Otherwise, please continue to address all correspondence in this Application to Mr. Edgar E. Spielman, Jr. at the address of record.

Respectfully submitted,

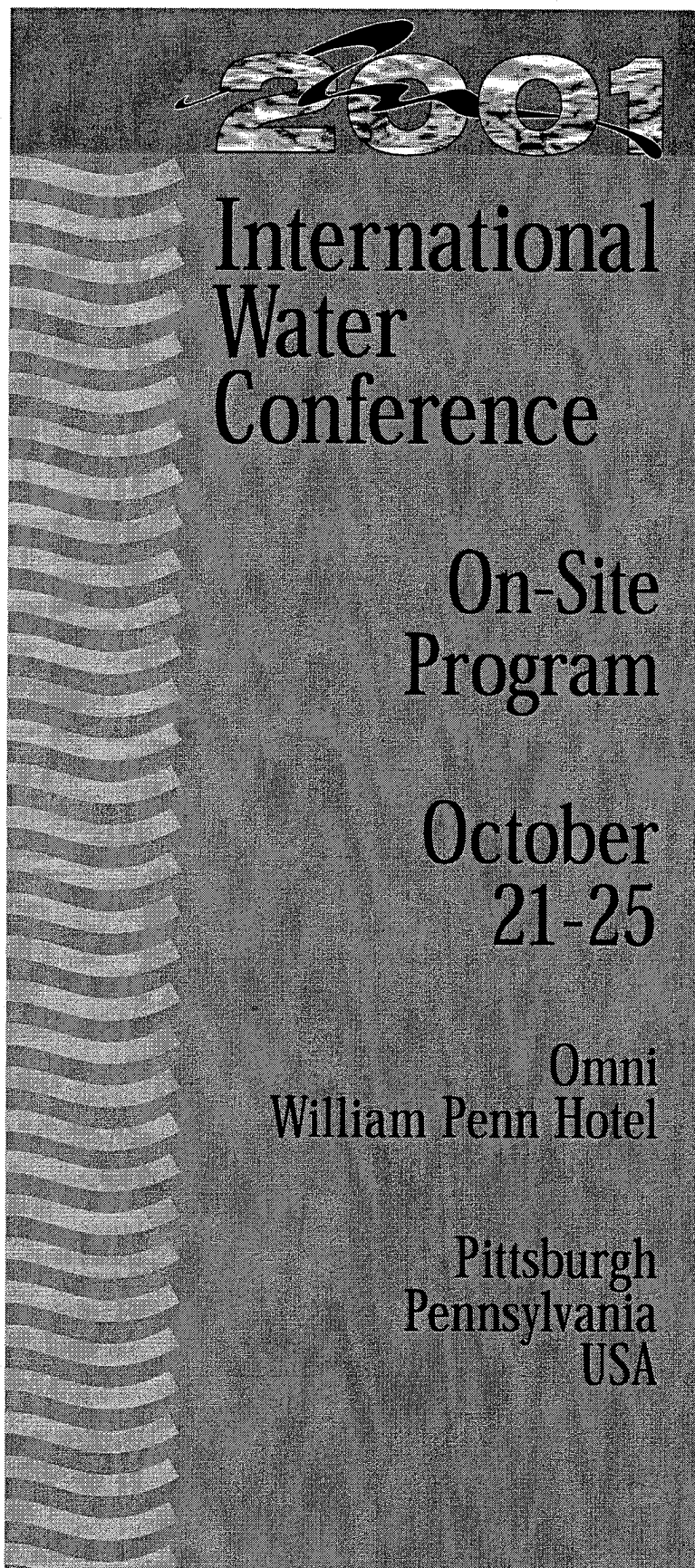
/Brenda C. Harvey/

Brenda C. Harvey
Reg. No. 50,405
Sieberth & Patty, LLC
4703 Bluebonnet Boulevard
Baton Rouge, LA 70809
Telephone: 225-291-4600
Facsimile: 225-291-4606

ATTACHMENT

p. 1 of 2

from <http://www.eswp.com/PDF/water01final.pdf>



ATTACHMENT

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from <http://www.eswp.com/PDF/water01final.pdf>

Monday

Technical Sessions

**Microorganism Control in
Process Water Systems, Part 1**

10AM-NOON URBAN ROOM, 17th FLOOR

Session Chair:

IWC Representative:

10:00am

10:25am

10:35am

10:50am

11:15am

11:25am

Patrick Gill, Advant Chemical, Inc.,
Coraopolis, PA

James Datesh, Dacar Industries
Incorporated, Pittsburgh, PA

**A Review and Comparison of MIC
Indices (Models)**
IWC-01-04 Paper
Richard W. Lutey, R.W. Lutey & Associates, Inc.,
Memphis, TN; Arthur Stein, Stone & Webster
Engineering, Inc., Boston, MA
This paper presents a review of the develop-
ment of current indices or models related to
defining the status of microbiologically influ-
enced corrosion (MIC) in cooling water and
related industrial process water systems. The
indices are used to predict the potential for MIC
occurrence at a specific site in a process water
system. Three different indices are compared
based on results obtained over eight years from
six power generating unit service water systems.
Prepared Discussion by: Art Freedman, Arthur
Freedman Associates, East Stroudsburg, PA

Closure & Floor Discussion

**New, Bromine-Releasing Solid for
Microbiological Control of Cooling Water**
IWC-01-05 Paper
Jonathan Howarth and CJ Nalepa, Albemarle
Corporation, Baton Rouge, LA
A new, solid, bromine-releasing biocide has
been developed for microbiological control of
cooling water. The material contains almost
twice the amount of bromine than its closest
solid counterpart. Several case histories are
reviewed which demonstrate improved perfor-
mance and cost-effectiveness over traditional
bromination technologies.
Prepared Discussion: to be announced

Closure & Floor Discussion

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